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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,020	03/17/2004	Marion D. Kilgore	2003-IP-012786 U1 US	5129
20558	7590	05/04/2006	EXAMINER	
SMITH IP SERVICES, P.C. 660 NORTH CENTRAL EXPRESSWAY SUITE 230 PLANO, TX 75074			BOMAR, THOMAS S	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/803,020

Applicant(s)

KILGORE ET AL.

Examiner

Shane Bomar

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-31, 35-47 and 50-72 is/are rejected.
- 7) ☒ Claim(s) 32-34, 48 and 49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/4/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-15, 17-31, 35-43, 45-47, and 50-72 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 4,505,332 to Mills et al.

Regarding claims 11, 12, 17, 30, 38, 42, 43, 51-54, and 61-65, Mills et al disclose an actuator for use in a well packer 20, as well as a method for setting the packer, the actuator comprising: multiple pistons 27 circumferentially spaced apart; multiple bores 25, each of the pistons being received in a respective one of the bores (see Figs. 15 and 17); a force transmission device 26B, each of the pistons being releasably coupled to the force transmission device so that displacement of each of the pistons in a longitudinal direction causes displacement of the force transmission device in the same direction, but the force transmission device is displaceable in the longitudinal direction relative to each of the pistons because the pistons only engage the device on one side of the shoulders (see Figs. 3B and 12B); and the actuator is positioned between the outer extents of the seal element 22 and the slip assembly 23U and 23L (see Figs. 2A-3B and 12A-13B).

Regarding claims 13, 28, 29, 31, 35-37, 41, 55, 56, 66, and 67, the force transmission device is displaceable in the longitudinal direction by less than all of the pistons, because if the piston in the right bore 25 (see Fig. 14, for example) were to fail, then the piston in the left bore 25 would act on the other tube 26B to still accomplish the setting of the packer device, and further wherein the shoulders on each of the tubes 26B (i.e., elongated members) is in the form of a ring that the pistons act downwardly upon.

Regarding claims 14, 15, and 45-47, a setting initiation device 51 applies a first biasing force to the force transmission device in response to pressure in the well when the tube 26B is exposed to pressure above the packer (see col. 11, lines 3-6 and 10-14), the first biasing force being greater than, and oppositely directed relative to, a second biasing force applied to the force transmission device by the pistons in response to pressure in the well (see col. 11, line 53 through col. 12, line 9).

Regarding claims 18-27, 50, 57-60, and 68-71, the bores are formed in an annular structure 21E that encircles an inner tubular mandrel MS or ML of the packer (see Figs. 2B, 3B, 10, and 12B), the structure is free of any direct attachment to the mandrel so that the structure is reciprocally displaceable on the mandrel (see col. 8, lines 5-11), and the force transmission device includes multiple elongated members 26B which extend across and through multiple respective openings formed longitudinally through the structure 21E (see Figs. 14-17).

Regarding claim 39, the plugs P and PP in Figures 14-17 are displaced via pressure, and therefore act as rupture discs, especially plug P that blocks a port in the tube 26B

Regarding claim 72, when the actuator applies force to the seal assembly, element 26A applies a downward force on the packer, whereas element 21C provides an opposite upward force on the slips to help them engage the wellbore (see Figs. 2A and 12A).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al.

Since this packer is set relatively high in the wellbore (see col. 7, lines 60-67), it is notoriously known in the art that the weight of the string below the packer will be extremely high. Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art that the pistons would have to be able to exert enough force to overcome the weight of the tubular string to be supported, wherein a force greater than 19,000 psi would be one that a person of ordinary skill could reasonably establish.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Akkerman, De Rochemont, Goad, and Hirth et al teach other packers and hangers of particular interest.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:30am to 4:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

tsb   
April 28, 2006